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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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William Lin

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EXAMINER

LAM, HUNG H

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/816,607

Applicant(s)

LIN, WILLIAM

Examiner

Hung H. Lam

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 6, 8, 11-17 and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Glenn (US-4,667,226).

With regarding **claim 1**, Glenn discloses a camera comprising:

a single lens (Fig. 1; see lens 50);

Art Unit: 2622.

a plurality of image sensors (130,140), each of the plurality of image sensors having distinct characteristics (Col. 2, Ln. 8-13; Col. 3, Ln. 9-29); and

an optical device (101-102) positioned between the lens and the plurality of image sensors to direct light rays from the lens to one of the plurality of image sensors (Col. 4, Ln. 51-60).

With regarding **claim 2**, Glenn the camera wherein the optical device comprises a body having a plurality of surfaces (see the rotatable reflective shutter in Fig. 2), at least one of the plurality of surfaces is operable to reflect a predetermined portion of the light rays from the lens to one of the plurality of image sensors (Col. 4, Ln. 50-Col. 5, Ln. 13).

With regarding **claim 3**, Glenn the camera wherein the optical device comprises a body made of a refractive medium to refract a predetermined portion of the light rays from the lens to one of the plurality of image sensors (see the reflective shutter in Fig. 2; Col. 4, Ln. 50-Col. 5, Ln. 13).

With regarding **claim 4**, Glenn the camera wherein the optical device comprises a body (motor 102) and a panel (shutter 101), the panel is operable to prevent the light rays from passing through the body while the body remains stationary (Fig. 1; Col. 4, Ln. 51-60; when the shutter 101 is rotated to reflect light to camera 140; light rays are inherently prevented from passing through camera 130 and motor 102).

With regarding **claim 6**, Glenn discloses the camera wherein the panel is a movable opaque panel (Figs. 1-2; Col. 4, Ln. 51-60).

With regarding **claim 8**, Glenn the camera further comprising a control device (Figs. 1 and 4; see the sync timing and control motor 190) to move the optical device in order to direct the light rays to a predetermined one of the plurality of image sensors (Col. 4, Ln. 59-Col. 5, Ln. 68).

With regarding **claim 11**, Glenn discloses the camera wherein the optical device comprises a prism (Fig. 2; Col. 4, Ln. 51-Col. 5, Ln. 13).

With regarding **claim 12**, Glenn the camera wherein the plurality of image sensors comprise at least one color image sensor and at least one black-and-white image sensor (Col. 3, Ln. 9-29).

It is noted that the USPTO considers the Applicant's "one of" language to be anticipated by any reference containing one of the subsequent corresponding elements.

With regarding **claim 13**, Glenn the camera wherein the plurality of image sensors comprise at least one complementary metal oxide semiconductor (CMOS) sensor and at least one charge coupled device (CCD) sensor (Col. 2, Ln. 32-41; Col. 6, Ln. 10-23).

With regarding **claim 14**, the claim is a method claim of the apparatus claim 1. Therefore, claim 14 is analyzed and rejected as discussed in claim 1.

With regarding **claim 15**, Glenn discloses the method of claim 14, wherein adjusting the paths of the light rays includes moving an optical device to a predetermined position corresponding to the one image sensor (Col. 4, Ln. 51-60).

With regarding **claim 16**, the claim is a method claim of the apparatus claim 2. Therefore, claim 16 is analyzed and rejected as previously discussed in claim 2.

With regarding **claim 17**, the claim is a method claim of the apparatus claim 3. Therefore, claim 17 is analyzed and rejected as previously discussed in claim 3.

With regarding **claim 21**, Glenn discloses a camera comprising:
means for receiving light rays through a single lens mounted within the camera (Fig. 1; see lens 50); and

means for adjusting paths of the light rays to direct the light rays to one of a plurality of image sensors installed within the camera (Fig. 1; 101-102; Col. 4, Ln. 51-60), each of the plurality of image sensors having distinct characteristics (Fig. 1; camera 130 and 140; Col. 2, Ln. 8-13; Col. 3, Ln. 9-29).

With regarding **claim 22**, Glenn discloses the camera wherein the means for adjusting paths of the light rays includes: means for selecting image signals from one

Art Unit: 2622

of the plurality of image sensors (Figs. 1 and 4; see the timing circuitry 190; Col. 4, Ln. 59-Col. 5, Ln. 68).

4. Claims 1, 7, 9, 14 and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Monroe (US-7,057,647).

With regarding **claim 1**, Monroe discloses a camera comprising:

a single lens (Fig. 2; see lens 10; Col. 5, Ln. 64-67);

a plurality of image sensors (color sensor 14, monochrome sensor 16), each of the plurality of image sensors having distinct characteristics (Col. 5, Ln. 64-Col. 6, Ln. 15); and

an optical device positioned between the lens and the plurality of image sensors to direct light rays from the lens to one of the plurality of image sensors (Fig. 2; beam splitter 12; Col. 5, Ln. 64-Col. 6, Ln. 15).

With regarding **claim 7**, Monroe discloses the camera wherein the optical device reflects a first predetermined portion of the light rays from the lens to a first one of the plurality of image sensors and passes a second predetermined portion of the light rays to a second one of the plurality of image sensors (see the beam splitter 12 in Figs. 2-4; Col. 6, Ln. 1-15).

With regarding **claim 9**, Monroe the camera further comprising an electronic controller to select signals output by one of the plurality of image sensors (Fig. 2; see switch 18).

With regarding **claim 14**, the claim is a method claim of the apparatus claim 1. Therefore, claim 14 is analyzed and rejected as discussed in claim 1.

With regarding **claim 20**, the claim is a method claim of the apparatus claim 9. Therefore, claim 20 is analyzed and rejected as previously discussed in claim 9.

With regarding **claim 21**, Glenn discloses a camera comprising:

means for receiving light rays through a single lens mounted within the camera (Fig. 2; see lens 10; Col. 5, Ln. 64-67); and

means for adjusting paths of the light rays to direct the light rays to one of a plurality of image sensors installed within the camera (Fig. 2; beam splitter 12; Col. 5, Ln. 64-Col. 6, Ln. 15), each of the plurality of image sensors having distinct characteristics (Fig. 2; color sensor 14, monochrome sensor 16; Col. 5, Ln. 64-Col. 6, Ln. 15).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2622

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glenn in view of Chretien (US-6,864,473).

With regarding claim 5, Monroe fails to explicitly disclose the camera wherein the panel comprises a liquid crystal display (LCD) panel.

In the same field of endeavor, Chretien teaches a camera system wherein a filtration system comprising a shading matrix such that an LCD or beams splitter, that may be used for shading, blocking or deflecting bright light source from reaching a receptor when light intensity exceeds a predetermined value (Col. 3, Ln. 19-35; Col. 3, Ln. 50- Col. 5, Ln. 65; Col. 6, Ln. 29-65; Col. 20, Ln. 13-35). In light of the teaching from Chretien, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Glenn by having the LCD or beams splitter of Chretien in order to shade or block bright light (Chretien: Col. 20, Ln. 13-35) thereby obtaining adequate light intensity value.

7. Claims 10, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe in view of Otake (US-2003/0,076,436).

With regarding **claim 10**, Monroe fails to explicitly disclose the camera wherein the optical device comprises an infrared filter.

In the same field of endeavor, Otake teaches an image sensing device wherein infrared filter can be inserted between prism lenses and the prism lenses can be designed exactly the same with each other for providing more productivity, stable functionality and save more manufacturing cost of the component part (0037). In light of the teaching from Otake, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Monroe to design both prism lenses the same exact size and insert an IR filter in between the prism. The modifications thus provide an infrared filtering capability and save more manufacturing cost of the component part (Otake: 0037).

With regarding **claim 18**, Monroe fails to explicitly disclose the method of claim 14, further comprising filtering the light rays to remove a predetermined component of the light rays.

In the same field of endeavor, Otake teaches an image sensing device wherein infrared filter can be inserted between prism lenses and the prism lenses can be designed exactly the same with each other for providing more productivity, stable functionality and save more manufacturing cost of the component part (0037). In light of the teaching from Otake, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Monroe to design both prism lenses the same exact size and insert an IR filter in between the prism. The

Art Unit: 2622

modifications thus provide an infrared filtering capability and save more manufacturing cost of the component part (Otake: 0037).

With regarding **claim 19**, Monroe in view of Otake discloses the method of claim 18, wherein filtering the light rays comprises removing an infrared component from the light rays (Otake: 0037; the IR filter is inherently used for removing infrared component from the light rays).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Sladen (Us-2002/0,061,767) discloses a camera having a beams splitter for rotating to different camera directions.

b) Saari (US-6,532,035) discloses a camera phone having multiple beam splitter positions.

c) Neirich (US-7,158,180) discloses a camera system wherein a DMD or SLM is used for reflecting unwanted light to a desired location.


Art Unit: 2622

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung H. Lam whose telephone number is 571-272-7367. The examiner can normally be reached on Monday - Friday 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SRIVASTAVA VIVEK can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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